

“बिजनेस पोस्ट के अन्तर्गत डाक शुल्क के नगद भुगतान (बिना डाक टिकट) के प्रेषण हेतु अनुमत. क्रमांक जी. 2-22-छत्तीसगढ़ गजट/38 सि. से. भिलाई, दिनांक 30-5-2001.”

पंजीयन क्रमांक  
“छत्तीसगढ़/दुर्ग/09/2010-2012.”



# छत्तीसगढ़ राजपत्र

( असाधारण )  
प्राधिकार से प्रकाशित

क्रमांक 258 ]

रायपुर, शनिवार, दिनांक 6 अक्टूबर 2012—आश्विन 14, शक 1934

## **Chhattisgarh State Electricity Regulatory Commission Irrigation Colony, Shanti Nagar, Raipur**

Raipur, Dated 06<sup>th</sup> October 2012

No. 43/CSERC/2012. — In exercise of powers conferred under Section 61 and 62 read with Section 181(2) of the Electricity Act 2003 and all other powers enabling it in this behalf, the Chhattisgarh State Electricity Regulatory Commission hereby makes the following regulations:

**Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2012.**

### **CHAPTER - 1 PRELIMINARY**

#### **1. SHORT TITLE AND COMMENCEMENT:**

- (i) These Regulations may be called the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2012.

- (ii) These Regulations shall be applicable for determination of tariff under Section 62 of the Act for the financial year 2013-14 to financial year 2015-16, and will remain in effect until these Regulations are superseded by new Regulations.

## 2. SCOPE AND EXTENT OF APPLICATION:

2.1 These Regulations shall apply to the following persons operating in the State of Chhattisgarh:

- (a) The State Transmission Utility (STU).
- (b) All generating stations supplying power to distribution licensees of the State under long term agreement except generating stations which are subject to the jurisdiction of the Central Commission and also such renewable energy generating stations located in the State whose tariff is decided by the Commission under relevant Regulations and orders;
- (c) All intra-state transmission licensee(s); and
- (d) All distribution licensee(s).

2.2 All proceedings under these Regulations shall be governed by the CSERC (Conduct of Business) Regulations, 2009 and amendment thereon.

3. **DEFINITIONS:** In these Regulations, unless the context otherwise requires,-

- 3.1 **"Act"** means the Electricity Act, 2003 (36 of 2003) or any amendments made to the same or any succeeding enactment thereof;
- 3.2 **"Additional capitalization"** means the capital expenditure incurred or projected to be incurred, after the date of commercial operation of the project and admitted by the Commission after prudence check, subject to provisions of Regulation 19;
- 3.3 **"Aggregate Revenue Requirement" or "ARR"** means the costs pertaining to the licensed and / or regulated business, which are permitted, in accordance with these Regulations, to be recovered from the tariffs and charges determined by the Commission.
- 3.4 **"Allocation Matrix"**, shall comprise of elements as specified in Chapter 6 of these Regulations.
- 3.5 **"Applicant"** means a licensee or a generating company who has made an application for determination of tariff or an application for true up in accordance with these Regulations and the Act.

- 3.6 **“Auxiliary Energy Consumption” or “AUX”** in relation to a period in case of a generating station means the quantum of energy consumed by auxiliary equipments of the generating station, and transformer losses within the generating station, expressed as a percentage of the sum of gross energy generated at the generator terminals of all the units of the generating station;
- 3.7 **“Beneficiary”**
- (a) In relation to a *generating station* means the person buying power generated by such station on payment of annual fixed charges and / or energy charges; and
  - (b) in relation to *transmission system* means long term and / or medium term open access customers as defined in Chhattisgarh State Electricity Regulatory Commission (Intra-state Open Access in Chhattisgarh) Regulations, 2011, as amended from time to time, and includes distribution licensee(s) who have transmission service agreement with the STU / transmission licensee.
- 3.8 **“Capital Cost”** means the capital cost as defined in Regulation 18;
- 3.9 **“Capital Investment Plan”** shall comprise of elements as specified in Regulation 7 of these Regulations;
- 3.10 **“Change in Law”** means occurrence of any of the following events:
- (i) the enactment, bringing into effect, adoption, promulgation, amendment, modification or repeal of any law; or
  - (ii) change in interpretation of any law by a competent court, Tribunal or Indian Governmental Instrumentality which is the final authority under law for such interpretation; or
  - (iii) change by any competent statutory authority, in any consent, approval or license available or obtained for the project.
- 3.11 **“Commission”** means the Chhattisgarh State Electricity Regulatory Commission referred to in sub-section (1) of section 82 of the Act;
- 3.12 **“Control Period”** means a multi-year period fixed by the Commission, from 1st April 2013 and up to 31st March 2016;
- 3.13 **“Cut-off Date”** means 31st March of the year closing after two years of the year of commercial operation of the project, and in case the project is declared under commercial operation in the last quarter of a year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation;

### 3.14 "Date of Commercial Operation" or "COD" means

3.14.1 in relation to a unit or block of the thermal generating station, the date declared by the generating company after demonstrating the maximum continuous rating (MCR) or the installed capacity (IC) through a successful trial run after due notice to the beneficiaries, from 00:00 hour of which scheduling process as per the Indian Electricity Grid Code (IEGC) / CG State Grid Code and amended from time to time is fully implemented, and in relation to the generating station as a whole, the date of commercial operation of the last unit or the block of the generating station.

3.14.2 in relation to a unit of hydro generating station, the date declared by the generating company from 00:00 hour of which, after due notice to the beneficiaries, scheduling process in accordance with the Indian Electricity Grid Code (IEGC) / CG State Grid Code is fully implemented, and in relation to the generating station as a whole, the date declared by the generating company after demonstrating peaking capability corresponding to installed capacity of the generating station through a successful trial run, after due notice to the beneficiaries.

#### Note

1. In case the hydro generating station with pondage or storage is not able to demonstrate peaking capability corresponding to the installed capacity for the reasons of insufficient reservoir or pond level, the date of commercial operation of the last unit of the generating station shall be considered as the date of commercial operation of the generating station as a whole, provided that it will be mandatory for such hydro generating station to demonstrate peaking capability equivalent to installed capacity of the generating unit or the generating station as and when such reservoir /pond level is achieved.
2. In case of purely run-of-river hydro generating station if the unit or the generating station is declared under commercial operation during lean inflows period when the water is not sufficient for such demonstration, it shall be mandatory for such hydro generating station or unit to demonstrate peaking capability equivalent to installed capacity as and when sufficient inflow is available.

3.14.3 in relation to the transmission system, the date declared by the STU / transmission licensee from 00:00 hour of which an element of the transmission system is in regular service after successful charging and trial operation;

Provided that the date shall be the first day of a calendar month and its availability shall be accounted for, from that date;

Provided further that in case an element of the transmission system is ready for regular service but is prevented from providing such service for reasons not attributable to the transmission licensee, its suppliers or contractors, the Commission may approve the date of commercial operation prior to the element coming into regular service;

3.14.4 In relation to a distribution system, means the date of charging electric lines or substations to its declared voltage level. In cases where line(s)/substation(s) are declared ready for charging but the licensee is not able to charge for reasons not attributable to the licensee, "date of operation" in respect of such line(s)/substation(s) shall be reckoned as seven days after the line(s)/substations(s) have been declared ready for charging.

3.15 **"Day"** means the 24 hour period starting at 00:00 hour;

3.16 **"Declared Capacity"** or **"DC"** in relation to a generating station means, the capability to deliver ex-bus electricity in MW declared by such generating station in relation to any time-block of the day or whole of the day, duly taking into account the availability of fuel or water, and subject to further qualification in the relevant regulation;

3.17 **"Design Energy"** in case of hydro generating station, means the quantum of energy which can be generated in a 90% dependable year with 95% installed capacity of the hydro generating station;

3.18 **"ERC"** means expected revenue from tariff and charges that a licensee is permitted to recover;

3.19 **"Existing Generating Station"** means a generating station declared under commercial operation from a date prior to 01.04.2013;

3.20 **"Existing Project"** means the project declared under commercial operation from a date prior to 01.04.2013;

- 3.21 **“Gross Calorific Value” or “GCV”** in relation to a thermal generating station means the heat produced in Kcal by complete combustion of one kilogram of solid fuel or one liter of liquid fuel or one standard cubic meter of gaseous fuel, as the case may be;
- 3.22 **“Gross Station Heat Rate” or “GHR”** means the heat energy input in Kcal required to generate one kWh of electrical energy at generator terminals of a thermal generating station;
- 3.23 **“Infirm Power”** means electricity injected into the grid prior to the commercial operation of a unit or block of the generating station;
- 3.24 **“Installed Capacity” or “IC”** means the summation of the name plate capacities of all the units of the generating station or the capacity of the generating station (reckoned at the generator terminals), approved by the Commission from time to time;
- 3.25 **“Maximum Continuous Rating” or “MCR”** in relation to a unit of the thermal generating station means the maximum continuous output at the generator terminals, guaranteed by the manufacturer at rated parameters, with water or steam injection (if applicable) and corrected to 50 Hz grid frequency and specified site conditions;
- 3.26 **“Normative Annual Plant Availability Factor” or “NAPAF”** in relation to a generating station means the availability factor specified in Regulation 39 for thermal generating station and in Regulation 41 for hydro generating station;
- 3.27 **“Operation and Maintenance Expenses” or “O&M expenses”** means the expenditure on operation and maintenance of the project, or part thereof, and includes the expenditure on manpower, repairs, spares, consumables, insurance, and overheads;
- 3.28 **“Original Project Cost”** means the capital expenditure incurred by the generating company or the Transmission Licensee / STU or the distribution licensee, as the case may be, within the original scope of the project up to the cut-off date as admitted by the Commission;
- 3.29 **“Plant Availability Factor (PAF)”** in relation to a generating station for any period means the average of the daily declared capacities (DCs) for all the days during that period expressed as a percentage of the installed capacity in MW reduced by the normative auxiliary energy consumption.
- 3.30 **“Project”** means a generating station or the transmission system or the distribution system, as the case may be, and in case of a hydro generating station includes

- components of generating facility such as dam, intake water conductor system, power generating station and generating units of the scheme, as apportioned to power generation;
- 3.31 **"Rated Voltage"** means the manufacturer's design voltage at which the transmission system is designed to operate and includes such lower voltage at which any transmission line is charged or for the time being charged, in consultation with beneficiary;
- 3.32 **"Regulated Business"** means the functions and activities which the licensee is required to undertake, in terms of the licence granted by the Commission or as a deemed licensee under the Act; and the generating company in terms of the provisions of the Act and the Regulations notified by the Commission;
- 3.33 **"Retail Supply Business"** means the business of sale of electricity by a distribution licensee to all categories of consumers within the area of supply, in accordance with the terms of the distribution licensee;
- 3.34 **"Retail Supply Tariff"** is the rate charged by the distribution licensee for supply to consumer and includes charges for wheeling and retail supply services;
- 3.35 **"Run-of-River Generating Station"** means a hydro generating station which does not have upstream pondage;
- 3.36 **"Run-of-River Generating Station With Pondage"** means a hydro generating station with sufficient pondage for meeting the diurnal variation of power demand;
- 3.37 **"Scheduled Energy"** means the quantum of energy scheduled by the State Load Despatch Centre to be injected into the grid by a generating station over a day ;
- 3.38 **"Scheduled Generation"** or **"SG"** at any time or for any period or time-block means schedule of generation in MW or MWh ex-bus, given by the State Load Dispatch Centre;
- 3.39 **"State Load Dispatch Centre"** or **"SLDC"** shall have the meaning as defined in the Act;
- 3.40 **"Storage Type Generating Station"** means a hydro generating station associated with large storage capacity to enable variation of generation of electricity according to demand;
- 3.41 **"Transmission Service Agreement"** means the agreement, contract, memorandum of understanding, or any such covenant entered into between the Transmission Licensee / STU and the beneficiary for the operational phase of the transmission system.

- 3.42 **“Transmission System”** means a line or a group of lines with or without associated sub-station, and includes equipment associated with transmission lines and sub-stations;
- 3.43 **“Unit”** in relation to a thermal generating station means steam generator, turbine-generator and auxiliaries and in relation to a hydro generating station means turbine-generator and its auxiliaries;
- 3.44 **“Useful Life”** in relation to a unit of a generating station, transmission and distribution system from the COD shall mean the following, namely:-
- |   |          |
|---|----------|
| (a) Coal based thermal generating station | 25 years |
| (b) AC and DC sub-station                 | 25 years |
| (c) Hydro generating station              | 35 years |
| (d) Transmission or distribution line     | 35 years |
- 3.45 **“Wheeling”** means the operation whereby the distribution system and associated facilities of a Transmission Licensee / STU or distribution licensee, as the case may be, are used by another person for the conveyance of electricity on payment of charges to be determined under Section 62 of the Act.
- 3.46 **“Wheeling Business”** means the business of operating and maintaining a distribution system for conveyance of electricity in the area of supply of the distribution licensee;
- 3.47 **“Year”** means the financial year ending on 31<sup>st</sup> March,
- “Current Year” means the year in which the statement of annual accounts or application for determination of tariff is filed;
- “Ending Year” means the year next following the current year; and
- “Previous Year” means the year immediately preceding the current year.

The words and expressions used in these Regulations and not defined herein but defined in the Act shall have the meaning assigned to them under the Act and other Regulations notified by the Commission, provided that when a word or phrase is used by the Commission in a specific context, the meaning applicable in that specific context, shall prevail and the generic definition given above may not be applicable.

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## **CHAPTER - 2**

### **GENERAL PRINCIPLES**

#### **4. MYT FRAMEWORK:**

- 4.1 The Commission in specifying these Regulations is guided by the principles contained in Sections 61 and 62 of the Act, the National Electricity Policy and the Tariff Policy notified by the Central Government:
- 4.2 Provided that the Commission may, either on *suo-motu* basis or upon application made to it by a generating company or STU/ transmission licensee or distribution licensee, exempt the determination of tariff under the Multi-Year Tariff framework for such period as may be contained in the Order granting such an exemption and in such case tariff shall be determined in accordance to CSERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 and amendments thereon. The Multi-Year Tariff framework shall be based on the following elements for determination of Aggregate Revenue Requirement and expected revenue from tariff and charges for Generating Company, STU/Transmission Licensee, Distribution Wheeling Business and Retail Supply Business:
- (a) Approval of capital investment plan for a period not less than the Control Period before the start of the Control Period;
  - (b) Mechanism for Truing up;
  - (c) Mechanism for pass through of uncontrollable items;
  - (d) Mechanism for sharing of gains or losses on account of controllable items;
  - (e) Determination of ARR and tariff for the control period.

#### **5. FILING UNDER MYT**

- 5.1 The filing under MYT by the generating company, STU/transmission licensee, and distribution licensee shall be done as per the timelines specified in these Regulations and in compliance with the principles for determination of ARR as specified in these Regulations, in such form as may be prescribed by the Commission from time to time.
- 5.2 The generating company and STU/transmission licensee shall file MYT application by 30<sup>th</sup> November 2012 in accordance with Regulation 5.7(a)(i). The yearly petition for ensuing year shall be filed by 30<sup>th</sup> November of current year in accordance with Regulation 5.7(b)(i).

- 5.3 The distribution licensee shall file MYT application by 30<sup>th</sup> November 2012 in accordance with Regulation 5.7(a)(ii). The yearly petition for ensuing year shall be filed by 30<sup>th</sup> November of current year in accordance with Regulation 5.7(b)(ii).
- 5.4 The applicant shall also submit a statement on compliance of directives issued by the Commission in its previous orders.
- 5.5 All the filings by any applicant should also be in conformity with the provisions of the CSERC (Licence) Regulations, 2004, its amendment(s) and the conditions of licence. The multi-year tariff filing shall be in such form and in such manner as may be prescribed by the Commission from time to time.
- 5.6 Every application for determination of tariff or for continuation of previously determined tariff shall be accompanied by a fee as specified in the prevailing CSERC (Fees and Charges) Regulations, as amended from time to time. The Commission may seek clarification and additional information on the application and the applicant shall provide clarifications and additional information within the date stipulated by the Commission.
- 5.7 The filing for the Control Period under these Regulations shall be as under;
- (a) MYT Petition shall comprise of:
- i. For Generation and Transmission business –
    1. Truing up for FY 2011-12;
    2. Multi-Year Aggregate Revenue Requirement for each year of the entire Control Period;
    3. Application for determination of tariff for each year of the entire Control Period;
  - ii. For Distribution Wheeling and Retail Supply Business –
    1. Truing up for FY 2011-12
    2. Multi-Year Aggregate Revenue Requirement for each year of the entire Control Period.
    3. Revenue from existing tariffs and charges and projected revenue gap for the first year of the Control Period.
    4. Application for retail tariff proposal for the first year of the control period.

(b) After first year of control period and onwards, the yearly petition shall comprise of:

- i. Generation and Transmission business - Truing up for preceding year(s).

The STU/transmission licensee shall file proposal for determination of

transmission charges for the short term open access customers along with true-up petition.

ii. For Distribution Wheeling and Retail Supply Business –

1. Truing up for preceding year(s).
  2. Revised power purchase quantum/cost (if any), with details thereof, for the ensuing year.
  3. Revenue from existing tariffs and charges and projected revenue for the ensuing year.
  4. Application for re-determination of ARR for the ensuing year along-with retail tariff proposal.
- (c) A Generating Company shall make all its filing, generating station wise, except for true up for such years, for which tariff order itself provided for one part average generation tariff for the company..
- (d) True up for any period shall be governed by the provisions of the regulation under which the tariff for that year was determined.
- (e) The Commission shall also consider the true up petition of the applicant for the previous years where the truing-up has been done on the basis of provisional accounts.

## 6. DISPOSAL OF PETITION

- 6.1 The Commission shall process the MYT tariff filing of the applicants in accordance with these Regulations and the Conduct of Business Regulations 2009 as amended from time to time.
- 6.2 Copies of the tariff application shall be made available for sale at the Commission's office and in such offices of the applicant as directed by the Commission. The document shall also be uploaded on the applicants website in downloadable format for easy accessibility to all stakeholders.
- 6.3 The Commission shall hold proceedings on the ARR and ERC proposed by the applicant on the basis of prevailing and proposed tariff, and may hear such persons as the Commission considers appropriate, before deciding on such proposals.
- 6.4 The applicant shall publish the summary of the proposals, as approved by the Commission for publication, highlighting the salient features of the application that are of interest to various stakeholders, in at least three newspapers, two in Hindi and one in English, having

wide circulation in the State and the area of the applicant. Minimum 21 days time shall be given for inviting written suggestion/ objections from the stakeholders.

6.5 The applicant shall publish the gist of the order including the approved tariffs, in at least three daily newspapers, two in Hindi and one in English, having wide circulation in its area of supply. Such tariff shall take effect from the date as may be specified by the Commission in the relevant tariff order.

6.6 The Commission shall, within seven days of making the order, send a copy of the order to the appropriate State Government, the Central Electricity Authority and the concerned generating company / licensee.

## 7. CAPITAL INVESTMENT PLAN

7.1 The Generating Company, Transmission Licensee, and Distribution Licensee shall file for approval of the Commission a capital investment plan by 31<sup>st</sup> October 2012. The capital investment plan should cover the entire Control Period, with details for each year of the Control Period.

7.2 The capital investment plan may be in respect of new generation projects or transmission/distribution schemes (for lines, sub stations, bays, etc.) for capacity addition/enhancement or renovation of existing capacities on completion of life or work required due to change in law, or deferred execution of work included in original scope or efficiency improvement or such works of value more than Rs. 1Crore which may be expedient for safe operation of the system.

(a) The capital investment plan shall show separately, on-going projects that will spill over into the Control Period, and new projects (along with justification) that will commence in the Control Period but may be completed within or beyond the Control Period. The capital investment plan shall contain the scheme details, justification for the work, capitalization schedule, capital structure and cost benefit analysis (where applicable).

(b) In addition to above:

i. The generating company shall submit the power sale arrangement in respect of new projects. For renovation and modernization schemes and all schemes meant for efficiency gain, cost benefit analysis and expected performance targets shall be required;

- ii. The Transmission Licensee shall submit the power evacuation plan and system strengthening plan in respect of future load forecast by the distribution licensee;
- iii. The Distribution Licensee shall submit a detailed sales/demand forecast, load forecast, power procurement plan, proposed measure to improve the quality of supply, metering plan, consumer services and loss reduction plan.

7.3 The Commission shall scrutinize and approve the capital investment plan after prudence check and after giving due opportunity to all the stakeholders to offer views/suggestions/objections and holding a hearing on the proposed plan and after taking into consideration the objections/ suggestions so received and any additional information provided by the applicant.

7.4 The Commission shall approve the capital investment plan before issuing the tariff order and shall consider the impact of approved capital investment plan in the tariff order.

7.5 Based on the priorities or urgent requirements, the licensee or the generating company may request for the change in the approved capital investment plan from the Commission.

7.6 In cases, where urgent action is required to mitigate threat to life and property, subject to prior intimation of the nature of urgency, brief about the proposed work and cost estimate, the licensee or the generating company, as the case may be, may take up the urgent work, subject to ex post facto submission of detail application for approval of the Commission.

7.7 Every year by 30<sup>th</sup> September, the applicant shall file the progress report in respect of the approved capital investment plan clearly indicating scheme-wise achievements, deviations, revised schedule and reasons for deviations.

## 8. SPECIFIC TRAJECTORY FOR CERTAIN VARIABLES

Targets will be set by the Commission for the items that are "controllable". Besides, trajectory for specific variables may be stipulated by the Commission where the performance of the applicant is sought to be improved upon through incentives and disincentives.

## 9. DETERMINATION OF TARIFF

9.1 Notwithstanding anything contained in these Regulations, the Commission shall at all times have the authority, either on *suo motu* basis or on a Petition filed by the applicant, to

9.2 Tariff in respect of a generating station may be determined for the whole of the generating station or a stage or unit or block of the generating station, and tariff for the transmission system may be determined for the whole of the transmission system or any part of the transmission system. The retail supply tariff, wheeling charges and miscellaneous charges for the distribution licensee shall also be decided by the Commission for whole of the distribution system.

- (a) Generation of electricity, in accordance with Chapter-4 of these Regulations
- (b) Transmission of electricity, in accordance with Chapter-5 of these Regulations;
- (c) Distribution Wheeling Business, in accordance with Chapter-6 of these Regulations;  
and
- (d) Retail Supply Business, in accordance with Chapter-7 of these Regulations.

10.1 Where the Aggregate Revenue Requirement and expected revenue from tariff and charges of a Generating Company or STU or Transmission Licensee or Distribution Licensee is covered under a Multi-Year Tariff framework, then such Generating Company or STU or Transmission Licensee or Distribution Licensee, as the case may be, shall be subject to truing up of expenses and revenue during the Control Period in accordance with these Regulations.

10.2 The Generating Company shall file an application each year during the Control Period for truing up of its generating stations of the previous year(s) and determination of revenue gap/surplus for the ensuing year, within the time limit specified in these Regulations. The STU/Transmission Licensee shall file application for truing up of the previous year and determination of revenue gap/surplus for the ensuing year, within the time limit specified in these Regulations. The Distribution Licensee shall file an application for truing up of the previous year(s) and determination of tariff for the ensuing year, within the time limit specified in these Regulations:

Provided that the generating company or STU/transmission licensee or distribution licensee, as the case may be, shall submit to the Commission information in such form as may be prescribed by the Commission, together with the Audited Accounts, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges.

- 10.3 In case the audited accounts are not available, the provisional truing up shall be done on the basis of un-audited / provisional account and shall be subject to further final truing up, as soon as the audited accounts is available.
- 10.4 The scope of the truing up shall be a comparison of the performance of the generating company or STU/transmission licensee or distribution licensee with the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges and shall comprise of the following:
  - (a) a comparison of the audited performance of the applicant for the previous financial year(s) with the approved forecast for such previous financial year(s), subject to the prudence check including pass-through of impact of uncontrollable factors;
  - (b) Review of compliance with directives issued by the Commission from time to time;
  - (c) Other relevant details, if any.
- 10.5 The net financial impact of true-ups shall be accounted for as per the provisions of Regulation 12 and Regulation 13 considering the factors like inflation, natural calamity etc. by the Commission. The net financial impact shall be passed on annual basis.
- 10.6 Truing up of preceding year(s), prior to commencement of this control period, shall be governed as per applicable Regulations/orders (under which tariff order has been passed).

## 11. CONTROLLABLE AND UN-CONTROLLABLE FACTORS

- 11.1 For the purpose of these Regulations, the term “uncontrollable factors” shall comprise of the following factors, but not limited to, which were beyond the control of the applicant, and could not be mitigated by the applicant:
  - (a) Force Majeure events;
  - (b) Change in law,
  - (c) Judicial pronouncements,

- (d) Fuel prices i.e. price of coal, oil and all primary-secondary fuel;
- (e) Sales mix and quantum of Sales;
- (f) Cost of power purchase;
- (g) Costs on account of inflation;
- (h) Taxes and Statutory levies.

11.2 For the purpose of these Regulations, the term "Controllable factors" shall comprise of the following:

- (a) Capitalization on account of cost overruns in the implementation of a capital expenditure project not attributable to an approved change in scope of such project, change in statutory levies or circumstances beyond control of the generating company or the licensee, as the case may be.
- (b) Generation Performance parameters like SHR, Auxiliary consumption, etc;
- (c) Energy losses computed in accordance to Regulation 69;
- (d) Transmission losses;
- (e) Operation & Maintenance expenses.

## 12. MECHANISM FOR PASS THROUGH OF GAINS OR LOSSES ON ACCOUNT OF UNCONTROLLABLE FACTORS

The aggregate net gains / losses to the generating company or STU/transmission licensee or distribution licensee on account of uncontrollable items (as per the tariff order) over such period shall be passed on to beneficiaries/consumers through the next ARR or as may be specified in the Order of the Commission passed under these Regulations.

## 13. MECHANISM FOR SHARING OF GAINS OR LOSSES ON ACCOUNT OF CONTROLLABLE FACTORS

The mechanism for sharing of aggregate net gain / loss on account of better/ under achievement in reference to the target set in tariff order for efficiency linked controllable items shall be passed on to the beneficiary / consumer(s) and the other one-half (or 50%) amount of gain/ loss shall be retained by the generating company or the licensee, as the case may be, over such period as may be stipulated in the Order of the Commission

## 14. TARIFF ORDER

Based on the applicant's filings, the Commission may accept the application, with such modifications and / or such conditions as may be deemed just and appropriate and pass



orders normally within 120 days of the admission of the application after considering all objections /suggestions / comments received from the stakeholders and the general public. The orders shall set inter-alia the targets for controllable items and approve Aggregate Revenue Requirement for applicant's regulated businesses:

**15. ADHERENCE TO TARIFF ORDER**

All orders determining tariff shall indicate the period for which it shall be in force and will continue till issue of next tariff order. No tariff or part of any tariff may be ordinarily amended, more frequently than once in any Financial year, except adjustment on account of fuel cost and power purchase based on VCA formulae approved by the Commission.

**16. SUBSIDY MECHANISM**

- 16.1 If the State Government decides to subsidize any consumer or class of consumers, it shall pay, as per the provisions of Section 65 of the Act, the amount in advance to compensate the licensee affected by the grant of such subsidy in the manner as specified by the Commission. Provided that no such direction of the State Government to grant subsidy shall be operative if the payment is not made in accordance with the provisions contained in the Section 65 of the Act and the tariff fixed by the Commission shall be applicable from the effective date of order issued by the Commission in this regard.
- 16.2 To ensure implementation of the provision of the Act, the Commission shall determine the tariff initially, without considering the subsidy commitment by the State Government and subsidized tariff shall be arrived at thereafter considering the subsidy by the State Government for the respective categories of consumers.
- 16.3 There shall not be any adjustment of the due subsidy against outstanding loans of the State Government.

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**CHAPTER - 3****FINANCIAL PRINCIPLES****17. DEBT EQUITY RATIO**

17.1 For a project declared under commercial operation on or after 01.04.2013, if the equity capital actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity capital actually deployed is equal or less than 30% of the capital cost, the actual equity shall be considered for determination of tariff: Provided, further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

**Explanation** – The premium, if any, raised by the generating company or the transmission licensee or the distribution licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the generating station or the transmission system or the distribution system.

17.2 In case of the generating station and the licensee declared under commercial operation prior to 01.04.2013, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2013 shall be considered.

17.3 Any expenditure incurred or projected to be incurred on or after 01.04.2013 as may be admitted by the Commission as additional capital expenditure for determination of tariff, including renovation and modernization expenditure for life extension shall be serviced in the manner specified in regulation 17.1 of these Regulations.

17.4 In case of transmission licensee or distribution licensee the cost of project and accordingly debt equity ratio may be calculated considering the whole network of transmission or distribution system of the licensee, as the case may be, in place of individual line or project.

**18. CAPITAL COST AND CAPITAL STRUCTURE****18.1 Capital cost for a project shall include:**

- (a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan, up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;
- (b) capitalized initial spares subject to the ceiling rates specified in Regulation 18.3; and
- (c) additional capital expenditure determined under Regulation 19:

Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost.

**18.2 The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:**

Provided that prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff:

Provided that where the actual capital cost is lower than the approved capital cost, the actual capital cost shall be considered for tariff determination. Any escalation in capital cost over and above the approved capital cost may be considered by the Commission subject to prudence check or independently vetted by the Commission.

Provided that in case the site of a hydro generating station is awarded to a developer by a State Government by following a two stage transparent process of bidding, any expenditure incurred or committed to be incurred by the project developer for getting the project site allotted shall not be included in the capital cost:

Provided also that the capital cost in case of such hydro generating station shall include:

- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with R&R package as approved; and
- (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) project in the affected area:

Provided also that where the long-term power purchase agreement entered into between the generating company and the beneficiaries or the transmission service agreement entered into between the transmission licensee and the beneficiary, as the case may be, provide for

ceiling of actual expenditure, the capital expenditure admitted by the Commission shall take into consideration such ceiling for determination of tariff.

18.3 The capital cost may include capitalized initial spares. Initial spares shall be capitalized as a percentage of the original project cost, subject to following ceiling norms:

- |   |         |
|---|---------|
| i. Coal-based/lignite-fired thermal generating stations     | - 2.50% |
| ii. Hydro generating stations                               | - 1.50% |
| iii. Transmission or distribution system                    |         |
| (a) Transmission or distribution line                       | - 0.75% |
| (b) Transmission or distribution Sub-station                | - 2.50% |
| (c) Series-/ Parallel Compensation devices and HVDC Station | - 3.50% |
| (d) Gas insulated Sub-station                               | - 3.50% |

18.4 Any expenditure on replacement, renovation and modernization or extension of life of old fixed assets, as applicable to Generating Company, Transmission Licensee and Distribution Licensee, shall be considered after writing off the net value of such replaced assets from the original capital cost.

18.5 The average capital cost during a year shall be computed as average of opening and closing gross fixed assets for the year.

Provided that for the new generating station or unit, the capital cost shall be charged on pro-rata basis during the year for the asset declared under commercial operation and for subsequent years, the capital cost shall be computed on the average asset base

## 19. ADDITIONAL CAPITALIZATION

19.1 The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

- i. Un-discharged liabilities;
- ii. Works deferred for execution;
- iii. Procurement of initial capital spares within the original scope of work, subject to the provisions of Regulation 18.3;

iv. Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and

v. Change in law:

Provided that the details of works included in the original scope of work along with estimates of expenditure, un-discharged liabilities and the works deferred for execution shall be submitted along with the capital investment plan.

19.2 The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

i. Liabilities to meet award of arbitration or for compliance of the order or decree of a court;

ii. Change in law;

iii. Deferred works relating to ash pond or ash handling system in the original scope of work;

iv. In case of hydro generating stations, any investment which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to geological reasons after adjusting for proceeds from any insurance scheme, and investment of more than Rs. 1 Crore which is considered indispensable by the Commission for running the generating station; and

v. In case of transmission /distribution system any additional investment on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other investment more than Rs. 1 Crore which has become necessary for successful and efficient operation of transmission / distribution system;

vi. Any investment of more than Rs. 1 Crore which is considered indispensable by the Commission for running the thermal generating station:

Provided that in respect of sub-clauses (iv) (v) and (vi) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, heat convectors, computer,

mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff.

## **20. RENOVATION AND MODERNIZATION**

- 20.1 The generating company or the transmission licensee/STU or the distribution licensee, as the case may be, for meeting the expenditure on renovation and modernization (R&M) for the purpose of extension of life beyond the useful life of the generating station or a unit thereof or the transmission system or the distribution system, shall make an application before the Commission for approval of the proposal with a Detailed Project Report giving complete scope, justification, cost-benefit analysis, estimated life extension from a reference date, financial package, phasing of expenditure, schedule of completion, reference price level, estimated completion cost including foreign exchange component, if any, and any other information considered to be relevant by the generating company or the transmission licensee or the distribution licensee:
- 20.2 Where the generating company or the transmission licensee or the distribution licensee, as the case may be, makes an application for approval of its proposal for renovation and modernization, the approval shall be granted after due consideration of reasonableness of the cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost-benefit analysis, and such other factors as may be considered relevant by the Commission
- 20.3 Any expenditure incurred or projected to be incurred on renovation and modernization shall be treated in line with the provisions under regulation 18.4.

## **21. CONSUMER CONTRIBUTION, DEPOSIT WORK AND GRANT**

- 21.1 The following nature of work carried out by the Transmission Licensee or Distribution Licensee shall be classified under this category:
- (a) Works after obtaining a part or all of the funds from the users in the context deposit works;
  - (b) Capital works undertaken by utilising grants received from the State and Central Governments, including funds under RGGVY, APDRP, etc;
  - (c) Any other grant of similar nature and such amount received without any obligation to return the same and with no interest costs attached to such subvention.

Provided that in case of part funding, the treatment shall be limited to that extent only.

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Principles for treatment of the expenses of such capital expenditure shall be as follows:

- (a) O&M expense as specified in these Regulations shall be allowed.
- (b) Depreciation, Return on Equity, and Interest on normative loan shall not be allowed.

## 22. RETURN ON EQUITY

22.1 Generation and Transmission: Return on Equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 17. Return on equity shall be computed on pre-tax basis at the base rate of maximum 15.5 % to be grossed up as per Regulation 22.3 of these Regulations.

22.2 Distribution: Return on Equity shall be computed in rupee terms on the equity base determined in accordance with Regulations 17. Return on equity shall be computed on pre-tax basis at the base rate of maximum 16 % to be grossed up as per Regulation 22.3 of these Regulations.

22.3 The rate of return on equity for each year of the control period shall be computed by grossing up the base rate with the prevailing MAT rate of the base year: Provided that return on equity with respect to the actual tax rate applicable to the generating company or the transmission licensee or distribution licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the Control Period shall be trued up separately for each year of the Control Period. In case, no tax is payable during the financial year, the tax rate for the purpose of truing up shall be taken as nil.

Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where, t is the applicable tax rate in accordance with regulation 22.3 of these regulations.

Provided that if there is a loss incurred by the generating company or the transmission licensee or distribution licensee, as the case may be, in the previous year and based on the prudence check made by the Commission, the Minimum Alternate Tax may not be considered in such a case while determining the return on equity.

## 23. INTEREST AND FINANCE CHARGES ON LOAN CAPITAL

23.1 The loans arrived at in the manner indicated in Regulation 17 shall be considered as gross normative loan for calculation of interest on loan.

- 23.2 The normative loan outstanding as on 01.04.2013 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2013 from the gross normative loan.
- 23.3 The repayment for the year of the tariff period shall be deemed to be equal to the depreciation allowed for that year.
- 23.4 Notwithstanding any moratorium period availed by the generating company or the licensee, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.
- 23.5 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:
- Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:
- Provided further that if the generating station or the licensee, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the licensee as a whole shall be considered:
- Provided further, in case of new generating station or the licensee commencing its operation after the date of effectiveness of these Regulations, and which don't have actual loan portfolio, the rate of interest shall be considered on normative basis and shall be equal to the Base rate of State Bank of India plus 200 basis points as on the date on which the generating station or a unit thereof or the transmission system or the distribution licensee, as the case may be, is declared under commercial operation.
- 23.6 The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.
- 23.7 The above interest computation shall exclude interest on loan amount, normative or otherwise, to the extent of capital cost funded by Consumer Contribution, Grants or Deposit Works carried out by Transmission Licensee or Distribution Licensee or Generating Company, as the case may be.
- 23.8 The generating company or the licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings



shall be shared between the beneficiaries and the generating company or the STU or the transmission licensee, as the case may be, in the ratio of 50:50.

The beneficiary shall not withhold any payment on account of the interest claimed by the generating company or the licensee during the pendency of any dispute arising out of re-financing of loan.

23.9 The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

23.10 In case of distribution licensee, the interest paid on security deposit (cash) to the consumers shall be allowed as a part of the Interest and Finance charges under these regulations.

## **24. DEPRECIATION**

24.1 The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission:

Provided that the capital cost shall not include funds from grant or consumer contribution received for funding of fixed asset as specified in Regulation 21.

24.2 The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

24.3 Land other than the land held under lease and the land for reservoir in case of hydro generating station and the land for ash-bund for thermal power stations shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

24.4 Depreciation shall be calculated annually based on Straight Line Method and at rates as specified in Appendix-I to these regulations for the assets of the generating station, transmission system and distribution system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 15 years from date of commercial operation shall be spread over the balance useful life of the assets:

24.5 In case of the existing projects, the balance depreciable value as on 1.4.2013 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2013 from the gross depreciable value of the assets.

24.6 Depreciation shall be chargeable from the first year of commercial operation. The depreciation shall be computed on the average asset base during the year.

Provided for the new generating station or unit, the depreciation shall be charged on pro-rata basis during the year the asset has been declared under commercial operation. For subsequent years, the depreciation shall be computed on the average asset base during the year.

## 25. INTEREST ON WORKING CAPITAL

### 25.1 The working capital shall cover:

#### (a) In case of coal based thermal generating stations:

- i. Cost of coal, if applicable, for 1 months for pit-head generating stations one and half months (1½) months for non-pit-head generating stations, for generation corresponding to the normative annual plant availability factor; plus
- ii. Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil; plus
- iii. Operation and maintenance expenses for one month; plus
- iv. Maintenance spares @ 20% of operation and maintenance expenses specified in Regulation 40.1; plus
- v. Receivables equivalent to one month of capacity charges and energy charges for sale of electricity calculated on the normative annual plant availability factor.

#### (b) In case of hydro generating station:

- i. Operation and maintenance expenses for one month; plus
- ii. Maintenance spares @ 15% of operation and maintenance expenses specified in Regulation 40.3 or 40.4, as the case may be; plus
- iii. Receivables equivalent to one month of fixed cost.

#### (c) In case of Transmission:

- i. Operation and maintenance expenses for one month; plus
- ii. Maintenance spares @ 15% of operation and maintenance expenses specified in Regulation 47.5; plus
- iii. Receivables equivalent to one month of fixed cost.

#### (d) In case of Distribution Wheeling Business:

- i. One-twelfth (1/12) of the amount of Operation and Maintenance expenses for such financial year; plus

- ii. Maintenance spares @ 15% of operation and maintenance expenses specified in Regulation 57.4; plus
- iii. One (1) months equivalent of the expected revenue from charges for use of Distribution Wires at the prevailing tariff;
- (e) In case of Retail Supply of Electricity
  - i. Operation and maintenance expenses for one month; plus
  - ii. Maintenance spares @ 15% of operation and maintenance expenses specified in Regulation 66.6; plus
  - iii. Receivables equivalent to one months of the expected revenue from sale of electricity at the prevailing tariffs;
  - iv. Less: Amount held as security deposits (cash) from consumers.
- 25.2 The cost of fuel in cases covered under sub-clauses (a) of Regulation 25.1 shall be based on the landed cost incurred taking into account normative transit and handling losses by the generating company and gross calorific value of the fuel as per latest available actual data for the three months and no fuel price escalation projection shall be considered during the tariff period.
- 25.3 Interest on working capital shall be allowed at a rate equal to the Base rate of State Bank of India as on 30<sup>th</sup> September of the financial year in which the Petition is filed plus 350 basis points. At the time of true-up, the interest rate shall be adjusted as per the actual rate prevailing on 1<sup>st</sup> April of the financial year for which truing up exercise has been undertaken.
- 25.4 Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee or the distribution licensee has not taken loan for working capital from any outside agency.
- 26. **TAX ON INCOME**  
Tax on any income stream other than the core business shall not be a pass through component in tariff and tax on such other income shall be borne by the generating company or transmission licensee or distribution licensee as the case may be. In case, any tax paid against income/services under other sources or non-tariff income which are considered in ARR, such taxes will also be passed through tariff.
- 27. **REBATE**  
For payment of bills of the generating company and the transmission licensee through letter of credit or otherwise, a rebate of 1% shall be allowed if payment is made within 7 days of

presentation of bills, by the Generating Company or the Transmission Licensee, as the case may be.

## **28. LATE PAYMENT SURCHARGE**

- 28.1 In case the payment of any bill for charges payable under these Regulations is delayed by a beneficiary beyond a period of 30 days from the date of billing, a late payment surcharge at the rate of 1.25% per month or the part thereof on outstanding amount, shall be levied by the generating company or the transmission licensee.
- 28.2 Late payment surcharge for the retail consumer shall be recoverable as per the provisions of relevant tariff order.

## **29. FOREIGN EXCHANGE RATE VARIATION**

- 29.1 The generating company or the transmission licensee or the distribution licensee, as the case may be, may hedge foreign exchange exposure in respect of the interest on foreign currency loan and repayment of foreign loan acquired for the generating station or the transmission or distribution system, in part or full in the discretion of the generating company/or the licensee.
- 29.2 Every generating company and licensee shall recover the cost of hedging of foreign exchange rate variation corresponding to the normative foreign debt, in the relevant year on year-to-year basis as expense in the period in which it arises and extra rupee liability corresponding to such foreign exchange rate variation shall not be allowed against the hedged foreign debt.
- 29.3 To the extent the generating company or the licensee or is not able to hedge the foreign exchange exposure, the extra rupee liability towards interest payment and loan repayment corresponding to the normative foreign currency loan in the relevant year shall be permissible provided it is not attributable to the generating company or the licensee or its suppliers or contractors.

## **30. RECOVERY OF COST OF HEDGING FOREIGN EXCHANGE RATE VARIATION**

Every generating company and/or the transmission licensee and/or the distribution licensee shall recover the cost of hedging and foreign exchange rate variation on year-to-year basis as income or expense in the period in which it arises, from beneficiaries.

**31. BILLING AND PAYMENT OF CHARGES**

- 31.1 Bills shall be raised for capacity charge and energy charge on monthly basis by the generating company and the transmission licensee/STU in accordance with these Regulations and payments shall be made by the beneficiaries directly to the generating company / transmission licensee/STU, as the case may be.

**Note:**

The CSPGCL presently supplies power to CSPDCL through non ABT mechanism. The supply of power by CSPGCL to CSPDCL through ABT mechanism will be introduced for the first time. In case of difficulties experienced to start with, the Commission may allow it as trial run for a period, as specified in the tariff order. During such period all the commercial settlements will be based on the existing arrangement or as specified by the Commission in the tariff order.

- 31.2 Transmission charges corresponding to any plant capacity for which a beneficiary has not been identified and contracted, shall be paid by the concerned generating company.
- 31.3 The billing to the retail consumers shall be done in accordance with the provisions specified in the prevailing CG supply code and amendments thereon.
- 31.4 In case, the State Govt. does not pay the due amount of subsidy in time and in cash for the retail supply consumers, the CSPDCL / distribution licensee shall issue the bill on the basis of the tariff determined by the Commission.

**32. PENSION FUND CONTRIBUTION**

Pension fund: For meeting up the past unfunded liabilities of erstwhile CSEB/State Power Companies employees appointed before 1.1.2004, a pension and gratuity trust has been created and funding to the same has been allowed in the past Tariff Orders of the Commission. The contribution to the fund shall be decided by the Commission on the basis of actuarial analysis, expected pension outflow for the State Power Companies and availability of fund with the Pension trust at the time of determination of MYT / ARR for each year of the control period.. However, the actual outflow towards the pension payment shall not be allowed in the O&M expenses covered in these Regulations for the Control Period. The pension outflow shall be met by the Pension trust. The pension fund contribution so determined by the Commission shall be recoverable in the same manner as specified in relevant chapters.

**CHAPTER – 4****GENERATION****33. PETITION FOR DETERMINATION OF GENERATION TARIFF**

A Generating Company is required to file a Petition for determination of tariff for supply of electricity to Distribution Licensees in accordance with the provisions of these Regulations.

**34. COMPONENTS OF TARIFF**

- 34.1 The tariff for supply of electricity from a thermal generating station shall comprise two parts, namely, capacity charge (for recovery of annual fixed cost consisting of the components specified in Regulation 35) and energy charge (for recovery of fuel cost).
- 34.2 The tariff for supply of electricity from a hydro generating station shall comprise composite capacity charge and energy charge to be derived in the manner specified in Regulation 43, (consisting of the components referred in Regulation 35 ).

**35. ANNUAL FIXED CHARGES**

- 35.1 The annual fixed cost (AFC) of a generating station shall consist of the following components –

- (a) Return on equity;
- (b) Interest and finance charges;
- (c) Depreciation;
- (d) Interest on working capital;
- (e) Operation and maintenance expenses;

**NOTE:**

1. Non-Tariff Income as specified in the Regulation 38, shall be subtracted from the sum of above (a to e) to arrive at AFC.
2. The SLDC charges shall be recovered in accordance with applicable CSERC(Fees and charges of SLDC) Regulations specified from time to time.
3. Pension & Gratuity Fund Contribution shall be recoverable in equal monthly installments as may be determined by the Commission in the Tariff order.
4. The Statutory Taxes and Duties shall be recoverable on reimbursement basis, as per actual.

Provided that Depreciation, Interest and finance charges on Loan Capital, Interest on Working Capital and Return on Equity for Thermal and Hydro Generating Stations shall be allowed in accordance with the provisions specified in Chapter 3 of these Regulations.

### 36. CAPITAL COST

The capital cost shall be allowed as provided in Regulation 18 of these Regulations.

### 37. SALE OF INFIRM POWER

Sale of infirm power shall be at the rates specified by the Commission from time to time.

### 38. NON TARIFF INCOME

38.1 Any income being incidental to the business of the generating company derived from sources, including but not limited to the disposal of assets, income from investments, rents, income from sale of scrap, income from advertisements, interest on advances to suppliers/contractors, income from sale of ash/rejected coal, and any other miscellaneous receipts but other than income from sale of energy, shall constitute the non tariff income.

38.2 The amount of Non-Tariff Income relating to the Generation Business as approved by the Commission shall be deducted from the Annual Fixed Cost in determining the Annual Fixed Charge of the Generation Company:

Provided that the Generation Company shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission from time to time.

### 39. NORMS OF OPERATION FOR THERMAL GENERATING STATION

39.1 Normative Annual Plant Availability Factor (NAPAF):-

- |   |   |     |
|---|---|-----|
| a) All thermal generating stations except KTPS and HTPS | - | 85% |
| b) Hasdeo Thermal Power Station Korba (HTPS)            | - | 83% |

39.2 Gross Station Heat Rate

A. Existing Thermal Generating Station

(a) Existing Coal -based Thermal Generating Stations, other than KTPS and HTPS:

200/210/250 MW Sets	500 MW Sets (sub-critical)
2500 KCal/kWh	2425 KCal/kWh

(b) Hasdeo Thermal Power Station Korba ( 4 x 210 MW) the GHR shall be 2650 KCal/kWh

**Note 1:**

In respect of 500 MW and above units where the boiler feed pumps are electrically operated, the gross station heat rate shall be 40 kCal/kWh lower than the gross station heat rate specified above.

**Note 2:**

For the generating stations having combination of 200/210/250 MW sets and 500 MW and above sets, the normative gross station heat rate shall be the weighted average gross station heat rate of the combinations.

**B. Thermal Generating Station achieving COD on or after 01.04.2010**

**(a) Coal-based Thermal Generating Stations**

$$= 1.065 \times \text{Design Heat Rate (KCal/kWh)}$$

Where the Design Heat Rate of a unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/ back pressure:

Provided that the design heat rate shall not exceed the following maximum design unit heat rates depending upon the pressure and temperature ratings of the units:

Pressure Rating (Kg/cm <sup>2</sup> )	150	170	170	247	247
SHT/RHT (0C)	535/535	537/537	537/565	537/565	565/593
Type of BFP	Electrical Driven	Turbine Driven	Turbine Driven	Turbine Driven	Turbine Driven
Max Turbine Cycle Heat rate (KCal/kWh)	1955	1950	1935	1900	1850
Min. Boiler Efficiency					
Sub-Bituminous Indian Coal	0.85	0.85	0.85	0.85	0.85
Bituminous Imported Coal	0.89	0.89	0.89	0.89	0.89
Max Design Unit Heat rate (Kcal/kWh)					
Sub-Bituminous Indian Coal	2300	2294	2276	2235	2176
Bituminous Imported Coal	2197	2191	2174	2135	2079



Provided further that in case pressure and temperature parameters of a unit are different from above ratings, the maximum design unit heat rate of the nearest class shall be taken:

Provided also that where unit heat rate has not been guaranteed but turbine cycle heat rate and boiler efficiency are guaranteed separately by the same supplier or different suppliers, the unit design heat rate shall be arrived at by using guaranteed turbine cycle heat rate and boiler efficiency:

Note: In respect of units where the boiler feed pumps are electrically operated, the maximum design unit heat rate shall be 40 kCal/kWh lower than the maximum design unit heat rate specified above with turbine driven BFP.

### 39.3 Secondary fuel oil consumption

(a) Coal-based generating stations except for KTPS shall be : 1.0 ml/kWh

### 39.4 Auxiliary Energy Consumption

(a) Coal-based generating stations except for KTPS and HTPS:

		With Natural Draught cooling tower or without cooling tower
(i)	200 MW series	8.5%
(ii)	500 MW and above	
	Steam driven boiler feed pumps	6.0%
	Electrically driven boiler feed pumps	8.5%

Provided further that for thermal generating stations with induced draft cooling towers, the norms shall be further increased by 0.5%.

Provided further that for units with static excitation system the norms shall be further increased by 0.3%.

(b) Considering the previous performance of power stations and the design aspects, the auxiliary consumption for the Hasdeo Thermal power stations (HTPS) of CSPGCL is fixed at 9.70 %.

39.5 Notwithstanding anything contained anywhere else, the norms of operation i.e NPAF, SHR, Station Heat Rate and Auxiliary Consumption for Korba East Thermal Station (KTPS), shall be decided by the Commission at the time of determination of MYT Tariff for the control period.

**39.6 Transit and handling losses**

Transit and handling losses for coal based generating stations for the control period, as a percentage of quantity of indigenous coal dispatched by the coal supply company during the month shall be as given below:

(a) Coal based Generating Stations except at (b) below:

- |                                      |          |
|--------------------------------------|----------|
| i. Pit head generating stations      | : 0.30%; |
| ii. Non-pit head generating stations | : 0.80%. |
| (b) Korba East TPS Complex           | : 1.15%. |

**40. OPERATION AND MAINTENANCE EXPENSES****40.1 Thermal Generating Station:**

(a) Operation and Maintenance (O&M) expenses for generating Company shall include:

- I. Employees costs;
- II. Administrative and General expenses;
- III. Repairs and Maintenance.

(b) The Operation and Maintenance expenses, excluding water charges, pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2012-13, shall be derived on the basis of the normalized average of the actual Operation and Maintenance expenses excluding water charges, pension fund contribution and impact of pay revision arrears available in the audited/un audited accounts for the previous three (3) years immediately preceding the base year FY 2012-13, subject to prudence check by the Commission.

(c) The normalization shall be done by applying weighted average inflation at the rate of 60% weightage to actual variation in CPI and 40% weightage to actual variation in WPI on year to year basis. The average of normalized net present value for 2009-10, 2010-11 and 2011-12, shall then be used to project base year value for 2012-13. The base year value so arrived, shall be escalated by the above inflation rate to estimate the O&M expense (excluding impact of pay revision, if any) for each year of the control period.

At the time of true up, the O&M cost shall be considered after taking into account the actual inflation instead of projected inflation for that period. Provided that water charges shall be pass through in tariff on reimbursement basis:

Provided further that impact of pay revision (including arrears) shall be allowed on actual during the true-up as per audited /unaudited accounts, subject to prudence check and any other factor considered appropriate by the Commission.

40.2 The O&M expenses for the base year i.e. FY 2012-13, for the units / stations coming into commercial operation after 01.04.2005, shall be considered as under:-

40.2.1 The normative O&M expenses as specified in the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulation 2009 above regulation for the year 2009-10 shall be admissible at the rate of 90% of the value allowed by CERC. Such normative value shall be exclusive of water taxes payable to the State government which shall be pass through to the beneficiary on actual basis. However, except for pension fund liabilities, normative value, so derived, shall be considered inclusive of all expenses incurred to meet head office or holding company expenses.

40.2.2 The adjusted value for 2009-10, as arrived above, shall be escalated by the actual inflation at a weighted average of 60: 40 of CPI : WPI ratio, on year to year basis till 2011-12.

40.2.3 For projecting the normative value for 2012-13 and onwards, average inflation of last three years (i.e 2009-10, 2010-11, 2011-12) shall be applied.

Provided, at the time of true up, the normative O&M cost shall be readjusted to take into account the effect of actual inflation for that period.

Provided, further that impact of pay revision (including arrears), if any, shall be considered separately during the true-up as per audited /unaudited accounts, subject to prudence check and any other factor considered appropriate by the Commission.

### 40.3 Existing Hydro Generating Stations

(a) Operation and Maintenance (O&M) expenses for generating Company shall include:

- I. Employees costs;
- II. Administrative and General expenses;
- III. Repairs and Maintenance.

- (b) The Operation and Maintenance expenses, excluding water charges, pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2012-13, shall be derived on the basis of the normalized average of the actual Operation and Maintenance expenses excluding water charges, pension fund contribution and impact of pay revision arrears available in the audited/un audited accounts for the previous three (3) years immediately preceding the base year FY 2012-13, subject to prudence check by the Commission.
- (c) The normalization shall be done by applying weighted average inflation at the rate of 60% weightage to actual variation in CPI and 40% weightage to actual variation in WPI on year to year basis. The average of normalized net present value for 2009-10, 2010-11 and 2011-12, shall then be used to project base year value for 2012-13. The base year value so arrived, shall be escalated by the above inflation rate to estimate the O&M expense (excluding impact of pay revision, if any) for each year of the control period.
- (d) At the time of true up, the O&M cost shall be considered after taking into account the actual inflation instead of projected inflation for that period.

Provided that variation in dearness allowance and impact of pay revision arrears shall be allowed on actual during the true-up as per audited /unaudited accounts, subject to prudence check and any other factor considered appropriate by the Commission.

#### 40.4 For New Hydro generating Stations:

- (a) O&M expenses for the first year of operation will be 1.5% of the original project cost (excluding cost of rehabilitation and resettlement works);
- (b) The O&M expenses for each year of the Control Period shall be determined by escalating the base year expenses determined above for the first year of operation, at the escalation factor provided in Regulation 40.3.

### 41 NORMS OF OPERATION FOR HYDRO GENERATING,

- 41.1 For the purpose of determination of Tariff, the gross generation shall be considered as Approved Design Energy for the plant:
- 41.2 For the purpose of tariff determination a further allowance may be made by the Commission in respect of gross generation as compared to design energy under special circumstances, e.g. abnormal silt problem or other operating conditions, and known plant limitations.

41.3 In case of a new hydro electric project the developer shall have the option of approaching the Commission in advance for fixation of NAPAF based on the principles enumerated in prevailing Central Commission Regulation.

41.4 Auxiliary Energy Consumption (AUX):

(a) Surface hydro generating stations

- i. with rotating exciters mounted on the generator shaft : 0.7%
- ii. with static excitation system : 1.0%

(b) Underground hydro generating stations

- i. with rotating exciters mounted on the generator shaft : 0.9 %
- ii. with static excitation system : 1.2 %

## 42 COMPUTATION AND PAYMENT OF CAPACITY CHARGE AND ENERGY CHARGE FOR THERMAL GENERATING STATIONS

42.1 The fixed cost of a thermal generating station shall be computed on annual basis, based on norms including relaxed norms specified under these Regulations, and recovered on monthly basis under capacity charge. The total capacity charge payable for a generating station shall be shared by its beneficiaries as per their respective percentage share / allocation in the capacity of the generating station.

42.2 The capacity charge payable to a thermal generating station for a calendar month shall be calculated in accordance with the following formulae :

(a) Generating stations in commercial operation for less than ten (10) years on 1st April of the financial year :  $AFC \times (NDM / NDY) \times (0.5 + 0.5 \times PAFM / NAPAF)$  (in Rupees);

Provided that in case the plant availability factor achieved during a financial year (PAFY) is less than 70%, the total capacity charge for the year shall be restricted to  $AFC \times (0.5 + 35 / NAPAF) \times (PAFY / 70)$  (in Rupees).

(b) For generating stations in commercial operation for ten (10) years or more on 1st April of the year:  $AFC \times (NDM / NDY) \times (PAFM / NAPAF)$  (in Rupees).

Where,

AFC = Annual fixed cost specified for the year, in Rupees.

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NAPAF = Normative annual plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant availability factor achieved during the month, in percent:

PAFY = Plant availability factor achieved during the year, in percent

Provided that till intra State ABT mechanism is not implemented the Capacity charge computation shall be done on the basis of monthly PLF and annual PLF.

42.3 The PAFM and PAFY shall be computed in accordance with the following formula:

$$\text{PAFM or PAFY} = 10000 \times \sum_{i=1}^N \text{DCi} / \{ N \times \text{IC} \times (100 - \text{AUX}) \} \%$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

DCi = Average declared capacity (in ex-bus MW), subject to clause below, for the ith day of the period i.e. the month or the year as the case may be, as certified by the State load dispatch centre after the day is over.

IC = Installed Capacity (in MW) of the generating station

N = Number of days during the period i.e. the month or the year as the case may be.

**Note:**

DCi and IC shall exclude the capacity of generating units not declared under commercial operation. In case of a change in IC during the concerned period, its average value shall be taken.

42.4 In case of fuel shortage in a thermal generating station, the generating company may propose to deliver a higher MW during peak-load hours by saving fuel during off-peak hours. The State Load Despatch Centre may then specify a pragmatic day-ahead schedule for the generating station to optimally utilize its MW and energy capability, in consultation with the beneficiaries. DCi in such an event shall be taken to be equal to the maximum peak-hour ex- power plant MW schedule specified by the State Load Despatch Centre for that day.

42.5 The energy charge shall cover the fuel cost (primary fuel as well as secondary fuel), and shall be payable by every beneficiary for the total energy scheduled to be supplied to such

beneficiary during the calendar month on ex-power plant basis, at the energy charge rate of the month (with fuel price adjustment). Total Energy charge payable to the generating company for a month shall be:

$$(\text{Energy charge rate in Rs./kWh}) \times \{\text{Scheduled energy (ex-bus) for the month in kWh.}\}$$

Provided that till intra State ABT mechanism is not implemented the energy charge computation shall be as follows:

$$(\text{Energy charge rate in Rs./kWh}) \times \{\text{Actual energy (ex-bus) for the month in kWh.}\}$$

Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formulae for coal based stations:

$$\text{ECR} = [ \{ (\text{GHR} - \text{SFC} \times \text{CVSF}) \times \text{LPPF} / \text{CVPF} \} + \text{SFC} \times \text{LPSFi} ] \times 100 / (100 - \text{AUX})$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = Gross calorific value of primary fuel as fired, in kCal per kg, per litre or per standard cubic meter, as applicable.

CVSF = Calorific value of secondary fuel, in kCal per ml.

ECR = Energy charge rate, in Rupees per kWh sent out.

GHR = Gross station heat rate, in kCal per kWh.

LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic meter, as applicable, during the month.

SFC = Specific fuel oil consumption, in ml per kWh.

LPSFi – Weighted Average Landed Price of Secondary Fuel in Rs./ml considered initially

42.6 Though Secondary fuel cost shall be part of variable cost but shall not be part of Fuel Cost Adjustment (FCA) formula. The impact on account of secondary fuel oil cost shall be taken care of at the time of true up.

42.7 Initially, the landed cost incurred by the generating company on secondary fuel oil shall be taken based on actual weighted average price of the three preceding months and in the absence of landed costs for the three preceding months, latest procurement price for the generating station, before the start of the year.

- 42.8 The secondary fuel oil expenses shall be subject to fuel cost adjustment at the end of the each year of tariff period, at the time of true up,
- 42.9 The landed cost of fuel for the month shall include price of fuel corresponding to the grade and quality of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by conveyer / rail / road or any other means, and, for the purpose of computation of energy charge, and in case of coal shall be arrived at after considering normative transit and handling losses as specified in Regulation 39.6.
- 42.10 The quarterly increase in the primary fuel cost shall be recovered as per the Fuel Cost Adjustment mechanism detailed by the Commission in its order on suo motu petition no. 26/2012, as may be amended/ modified from time to time.

#### **43 COMPUTATION AND PAYMENT OF CAPACITY CHARGE AND ENERGY CHARGE FOR HYDRO GENERATING STATIONS**

- 43.1 The tariff for the hydro plant shall be one part tariff;
- 43.2 Hydro generating stations shall be treated as must run power station.

#### **44 SHARING OF CDM BENEFITS**

- 44.1 The proceeds of carbon credit from approved CDM project shall be shared in the following manner, namely-
- (a) 100% of the gross proceeds on account of CDM to be retained by the project developer in the first year after the date of commercial operation of the generating station;
  - (b) in the second year, the share of the beneficiaries shall be 10% which shall be progressively increased by 10% every year till it reaches 50%, thereafter the proceeds shall be shared in equal proportion, by the generating company and the beneficiaries.

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**CHAPTER - 5****TRANSMISSION****45 COMPONENTS OF TARIFF****45.1 Annual Transmission Charges for each year of the Control Period:**

The Annual Transmission Charges for each financial year of the Control Period shall provide for the recovery of the Aggregate Revenue Requirement of the Transmission Licensee / STU for the respective financial year of the Control Period, reduced by the amount of Non-Tariff Income and income from other business, as approved by the Commission:

45.2 The Annual Transmission Charges of the Transmission Licensee shall be determined by the Commission on the basis of an application for determination of Aggregate Revenue Requirement made by the Transmission Licensee in accordance with Chapter-2 of these Regulations.

**46 CAPITAL INVESTMENT PLAN**

The Transmission Licensee shall submit a Capital Investment Plan in the manner specified in Chapter-2 of these Regulations.

**47 COMPUTATION OF ANNUAL CHARGES FOR INTRA-STATE TRANSMISSION NETWORK**

47.1 Aggregate Revenue Requirement of transmission licensee shall comprise the following components, viz.

- (a) Return on Equity (ROE);
- (b) Interest and finance charges;
- (c) Depreciation;
- (d) Operation and maintenance expenses;
- (e) Interest on working capital;

Less:

- (f) Non-Tariff Income;

**NOTE:**

1. Non-Tariff Income as specified in the Regulation 50, shall be subtracted from the sum of above (a to e) to arrive at AFC.

2. Pension & Gratuity Fund Contribution shall be recoverable in equal monthly installments as may be determined by the Commission in the Tariff order.
3. The Statutory Taxes and Duties shall be recoverable on reimbursement basis, as per actual.

#### 47.2 Return on Equity

The Transmission Licensee shall be allowed a return on equity as specified in Regulation 22 of these Regulations.

#### 47.3 Interest on Loan Capital

The Transmission Licensee shall be allowed Interest and Finance Charges on loan capital as specified in Regulation 23 of these Regulations.

#### 47.4 Depreciation

The Transmission Licensee shall be permitted to recover depreciation on the value of fixed assets as specified in Regulation 24 of these Regulations.

#### 47.5 Operation and Maintenance expenses

47.5.1 Operation and Maintenance (O&M) expenses for Transmission licensee shall include:

- I. Employees costs;
- II. Administrative and General expenses
- III. Repairs and Maintenance

(a) The Operation and Maintenance expenses, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2012-13, shall be derived on the basis of the normalized average of the actual Operation and Maintenance expenses excluding pension fund contribution and impact of pay revision arrears available in the audited/un audited accounts for the previous three (3) years immediately preceding the base year FY 2012-13, subject to prudence check by the Commission.

(b) The normalization shall be done by applying weighted average inflation at the rate of 60% weightage to actual variation in CPI and 40% weightage to actual variation in WPI on year to year basis. The average of normalized net present value for 2009-10, 2010-11, and 2011-12, shall then be used to project base year value for 2012-13. The base year value so arrived, shall be escalated by the above inflation rate to estimate the

O&M expense (excluding impact of pay revision, if any) for each year of the control period.

At the time of true up, the O&M cost shall be considered after taking into account the actual inflation instead of projected inflation for that period.

Provided further that impact of pay revision (including arrears), if any, shall be considered on during the true-up as per audited /unaudited accounts, subject to prudence check and any other factor considered appropriate by the Commission.

47.5.2 The additional O&M Expenses on account of new transmission lines/ substations commissioned after March 31, 2013 shall be allowed by the Commission subject to prudence check at the time of truing up exercise.

47.6 Interest on working capital

The Transmission Licensee shall be allowed interest on the estimated level of working capital, as specified in Regulation 25 of these Regulations.

#### **48 SHARING OF CHARGES FOR INTRA-STATE TRANSMISSION NETWORK**

The fixed cost of the transmission system shall be computed on annual basis, in accordance with norms contained in these regulations, aggregated as appropriate, and recovered on monthly basis as transmission charge from the beneficiaries as per the methodology specified in the Open Access Regulation.

#### **49 AUXILIARY ENERGY CONSUMPTION IN SUB-STATION**

The charges for auxiliary energy consumption in the sub-station for the purpose of air-conditioning, lighting and consumption in other equipment shall be borne by the transmission licensee/STU and included in the operation and maintenance expenses.

#### **50 NON-TARIFF INCOME**

50.1 Any income being incidental to the business of the transmission licensee derived from sources, including but not limited to the disposal of assets, income from investments, rents, income from sale of scrap, income from advertisements, interest on advances to suppliers/contractors and any other miscellaneous receipts shall constitute the non tariff income.

50.2 The amount of Non-Tariff Income relating to the Transmission Business as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in

determining annual transmission charges of the Transmission Licensee:

Provided that the Transmission Licensee shall submit full details of his forecast of Non-Tariff Income to the Commission along with its application for determination of Aggregate Revenue Requirement.

## 51 TRANSMISSION LOSS TRAJECTORY AND ITS TREATMENT

51.1 Loss trajectory for STU, for each year of the control period shall be as under

FY 2013-14 - 4.40%

FY 2014-15 - 4.30%

FY 2015-16 - 4.20%

For other transmission licensees, the trajectory shall be given in the respective tariff order.

51.2 Transmission loss levels shall be calculated as the difference between the sum of all energy (X) injected into the transmission system from different interface points and the sum of energy transmitted to distribution licensee(s), CTU and retail and/or open access consumer(s) connected with transmission system, (Y). Transmission losses expressed as a percentage shall be the transmission loss as a percentage of the total energy injected into the transmission system.

$$\text{Transmission loss (\%)} = \frac{(X - Y) \times 100}{X}$$

51.3 The impact of actual Transmission loss vis-a-vis normative level shall be treated in accordance to the regulation for sharing of gains / losses on account of controllable factors.

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**CHAPTER - 6****DISTRIBUTION WHEELING BUSINESS****52 APPLICABILITY**

The Regulations contained in this Chapter shall apply to the determination of tariff payable for usage of distribution Wires of a Distribution Licensee..

**53 COMPONENTS OF AGGREGATE REVENUE REQUIREMENT FOR DISTRIBUTION WHEELING BUSINESS**

53.1 The wheeling charges for Distribution Wheeling Business of the Distribution Licensee shall provide for the recovery of the ARR, as provided in Regulation 64 of these Regulations: and shall comprise of the following:

- (a) Operation and maintenance expense
- (b) Depreciation
- (c) Interest and finance charges
- (d) Interest on working capital
- (e) Return on equity
- (f) Pension & Gratuity fund contribution

Less:

- (g) Non Tariff Income

**NOTE:**

1. Non-Tariff Income as specified in the Regulation 58, shall be subtracted from the sum of above (a to f) to arrive at AFC.
2. The Statutory Taxes and Duties shall be recoverable on reimbursement basis, as per actual.

Provided that the wheeling charges of the Distribution Licensee shall be determined by the Commission on the basis of an application for determination of tariff made by the Distribution Licensee in accordance with Chapter-2 of these Regulations:

Provided further that the Wheeling Charges may be denominated in terms of Rupees/kWh, for the purpose of recovery from the Distribution System User, or any such denomination, as stipulated by the Commission from time to time.

**54 ALLOCATION MATRIX**

The distribution licensee shall segregate its accounts into wheeling business and retail supply business. The Wheeling Charges of the Distribution Licensee shall be determined by the Commission on the basis of segregated accounts of Distribution Wires Business:

Provided that where the Distribution Licensee is not able to submit separate accounts for Distribution Wheeling Business and Retail Supply Business, the Commission shall determine allocation matrix in the following manner:

(a) The Licensee shall prepare an "allocation matrix" for the control period showing apportionment of costs and revenues to these two businesses. The statement shall be supported with an explanation of the methodology used for such allocations.

(b) The Commission shall review the "allocation matrix" submitted by the Licensee and based on the prudence check shall finalize the "allocation matrix" for each year of the control period.

**55 CAPITAL INVESTMENT PLAN**

The Distribution Licensee shall submit a Capital Investment Plan in the manner specified in Chapter-2 of these Regulations.

**56 CAPITAL COST**

The capital cost shall be allowed as provided in Chapter 3 of these Regulations.

**57 CALCULATION OF AGGREGATE REVENUE REQUIREMENT****57.1 Return on Equity**

The Distribution Licensee shall be allowed a return on equity for Distribution Wheeling Business, as specified in Regulation 22 of these Regulations.

**57.2 Interest on Loan Capital**

Interest on loan capital shall be computed in accordance with Regulations 23 of these Regulations.

**57.3 Depreciation**

Depreciation of the assets of distribution licensee shall be computed in the manner prescribed in Regulation 24 of these Regulations.

## 57.4 Operation and maintenance expenses

### 57.4.1 Operation and Maintenance (O&M) expenses for shall include:

- I. Employees costs;
  - II. Administrative and General expenses
  - III. Repairs and Maintenance
- (a) The Operation and Maintenance expenses, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2012-13, shall be derived on the basis of the normalized average of the actual Operation and Maintenance expenses excluding pension fund contribution and impact of pay revision arrears available in the audited/un audited accounts for the previous three (3) years immediately preceding the base year FY 2012-13, subject to prudence check by the Commission.
  - (b) The normalization shall be done by applying weighted average inflation at the rate of 60% weightage to actual variation in CPI and 40% weightage to actual variation in WPI on year to year basis. The average of normalized net present value for 2009-10, 2010-11 and 2011-12, shall then be used to project base year value for 2012-13. The base year value so arrived, shall be escalated by the above inflation rate to estimate the O&M expense (excluding impact of pay revision, if any) for each year of the control period.
  - (c) At the time of true up, the O&M cost shall be considered after taking into account the actual inflation instead of projected inflation for that period.

Provided further that impact of pay revision (including arrears), if any, shall be allowed on actual during the true-up as per audited /unaudited accounts, subject to prudence check and any other factor considered appropriate by the Commission.

57.4.2 The additional O&M Expenses on account of new lines/ substations commissioned after March 31, 2013 shall be allowed by the Commission subject to prudence check at the time of truing up exercise.

## 57.5 Interest on Working Capital

Interest on Working capital shall be allowed in accordance with Regulations 25 of these Regulations.

## 57.6 Taxes on Income

Taxes on income shall be allowed in accordance with Regulations 26 of these Regulations.

**58 NON-TARIFF INCOME**

58.1 Any income being incidental to the business of the distribution licensee derived from sources, including but not limited to the disposal of assets, income from investments, rents, income from sale of scrap, income from advertisements, interest on advances to suppliers/contractors, open access charges, parallel operation charges penalties and any other miscellaneous receipts but other than income from sale of energy, shall constitute the non tariff income.

58.2 The amount of Non-Tariff Income relating to the Distribution Wheeling Business as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in determining the wheeling charges of Distribution Wires Business of the Distribution Licensee:

Provided that the Distribution Licensee shall submit full details of his forecast of Non-Tariff Income to the Commission along with its application for determination of Aggregate Revenue Requirement.

**59 DETERMINATION OF WHEELING CHARGES**

The Commission shall specify the wheeling charge of Distribution Wheeling Business of the Distribution Licensee in its Order passed under Section 62 of the Act. Notwithstanding anything contained in this Regulation the wheeling charges applicable to open access customers shall be computed and applied at relevant voltage level. Provided that the wheeling charges payable by an open access customers (other than the retail consumers getting electricity supply from the same Distribution Licensee), shall be governed as per open access regulation.

Provided that the charges paid by such open access customers shall be used to reduce the Aggregate Revenue Requirement of the retail supply business in accordance with the Regulations in Chapter 7.

**60 WHEELING LOSSES**

The Distribution Licensee shall be allowed to recover, in kind, the approved level of voltage wise wheeling losses arising from the operation of the distribution system. Wheeling loss at 33KV voltage level shall be considered 6%.



**CHAPTER - 7****RETAIL SUPPLY BUSINESS****61 APPLICABILITY**

These Regulations shall apply to determination of tariff for retail supply of electricity by a Distribution Licensee to its consumers.

**62 COMPONENTS OF TARIFF**

62.1 The ARR for retail supply business of the distribution licensee for each year of the control period shall comprise of the following, namely:

- (a) Power Purchase Costs
- (b) Transmission and SLDC Charges
- (c) Operation and maintenance expense
- (d) Depreciation
- (e) Interest and finance Charges
- (f) Interest on working capital
- (g) Return on equity
- (h) Provision for Bad debts
- (i) Aggregate Revenue Requirement for Distribution Wheeling Business, as determined under Chapter 6 of these Regulations,

Less:

- (j) Non Tariff Income
- (k) Revenue on account of open access / wheeling charges.
- (l) Revenue from sale of surplus power (other than retail consumers.)

Provided that the receipt of revenue on account of cross-subsidy surcharge shall be considered only at the time of truing up exercise based on actual receipts as per Audited/ Un Audited Accounts.

62.2 The tariff for retail supply by a Distribution Licensee shall be determined by the Commission on the basis of segregated accounts or allocation matrix, as the case may be, in accordance with the Regulation 54 of these Regulations.

**63 CAPITAL INVESTMENT PLAN**

The Distribution Licensee shall submit a Capital Investment Plan in the manner specified in Chapter-2 of these Regulations.

**64 CAPITAL COST**

The capital cost shall be allowed as provided in Chapter 3 of these Regulations.

**65 SALES FORECAST**

65.1 The licensee shall submit forecast of restricted demand (in MW) and unrestricted demand (in MW) for all consumer categories together and sale of electricity (in MU) for different categories of consumers in his area of supply, for each year of the control period. The forecasts for category-wise sale of electricity shall generally be worked out on the basis of general assessment and CAGR or any other prudent method.

65.2 The sales forecast for unmetered consumer categories, if any, shall be subject to the prudent check / estimation by the Commission.

65.3 The Commission shall examine the forecasts for their reasonableness based on growth in the number of consumers, pattern of consumption, losses and demand of electricity in previous years and anticipated growth in the next year and any other factor, which the Commission may consider relevant and approve the sales forecast with such modifications as deemed fit.

**66 CALCULATION OF AGGREGATE REVENUE REQUIREMENT****66.1 Return on Equity:**

The Distribution Licensee shall be allowed a return on equity, as specified in Regulation 22 of these Regulations.

**66.2 Interest on Loan Capital:**

Interest on loan capital shall be computed in accordance with Regulations 23 of these Regulations.

**66.3 Depreciation:**

Depreciation of the assets of distribution licensee shall be computed in the manner prescribed in Regulation 24 of these Regulations.

**66.4 Cost of power generation/power purchase:**

66.4.1 The distribution licensee shall be allowed to recover the cost of power it procures from all sources including the power procured from the State owned generating stations,

independent power producers, Central generating stations, Captive generating plant, renewable energy sources and others, as may be approved by the Commission for each year of the control period.

66.4.2 Approved retail sales level shall be grossed up by normative level of T&D losses as given in the approved loss trajectory for the purpose of arriving at the quantity of energy required for sale to the retail consumers. Further, estimated revenue from the sale of surplus power / under-drawl from the grid, if any, shall be reduced from the gross power purchase cost for estimating the net power purchase cost in the ARR.

66.4.3 Provided, further that at the time of true up, the UI over-drawl / under-drawl shall be considered for arriving at the power purchase cost and revenue from sale of surplus power shall be accounted separately.

66.4.4 The quarterly increase in the power purchase cost from long term sources shall be as per the Variable Cost Adjustment mechanism detailed by the Commission in its order on suo motu petition no. 26/2012, as may be amended/ modified from time to time.

66.5 Transmission charges and SLDC charges:

66.5.1 The distribution licensee shall be allowed to recover transmission charges payable for access to and use of the intra-State transmission system in accordance with the tariff approved by the Commission under Chapter-5 of these Regulations.

66.5.2 The distribution licensee shall also be allowed to recover the expenses at the approved level:

- (a) the charges for intervening transmission facilities;
- (b) wheeling charges for use of distribution system of other distribution licensee(s);
- (c) the charges for access and use of inter-state transmission system in accordance with the tariffs determined by CERC; and
- (d) the fees and charges payable to the RLDC and SLDC as may be specified by the appropriate Commission.

66.6 Operation and Maintenance expenses

Operation and Maintenance (O&M) expenses for retail supply business shall be allowed in accordance with Regulation 57.4 of these Regulations.

66.7 Interest on Working Capital

Interest on Working capital shall be allowed in accordance with Regulations 25 of these Regulations.

66.8 Bad and doubtful debt

A provision of maximum 1% revenue of retail supply business shall be allowed. The same shall be subject to true up on aggregate basis at the end of control period on actual basis and prudence check made by the Commission.

sources including the power account and distribution losses

**67 NON-TARIFF INCOME**

Any income being incidental to the business of the distribution licensee derived from sources, including but not limited to the disposal of assets, income from investments, rents, income from sale of scrap, income from advertisements, interest on advances to suppliers/contractors, parallel operation charges, and any other miscellaneous receipts but other than income from sale of energy, shall constitute the non tariff income.

The Distribution Licensee shall submit full details of his forecast of Non-Tariff Income to the Commission along with its application for determination of Aggregate Revenue Requirement.

**68 RECEIPTS ON ACCOUNT OF CROSS-SUBSIDY SURCHARGE**

The amount received by the Distribution Licensee by way of cross-subsidy surcharge, as approved by the Commission in accordance with the Chhattisgarh State Electricity Regulatory Commission (Connectivity and Intra-State Open Access) Regulations, 2011, as applicable and as amended from time to time, shall be deducted from the Aggregate Revenue Requirement in calculating the tariff for retail supply of electricity by such Distribution Licensee, at the time of true up.

**69 ENERGY LOSSES FOR 33 KV AND BELOW SYSTEM**

69.1 The energy loss for 33 Kv and below voltage level, shall be evaluated taking into consideration the clause 4.2.5 and 8.4.3 of the State Grid Code 2011. The difference between the energy injected at 33 KV voltage level and the sum of energy sold to all its consumers (retail and open access), at voltage level 33 KV and below shall be the energy loss for the 33KV and below system. The same shall be considered for the gain/ loss at the time of true up.

69.2 Energy sold shall be the sum of metered sales and assessed unmetered sales, if any, based on prudence check by the commission.

69.3 Energy Loss trajectory for 33 Kv and below system for State utility for each year of the control period shall be as under

FY 2013-14 - 29%

FY 2014-15 - 28%

FY 2015-16 - 27%

For other distribution licensees, the trajectory shall be given in the respective tariff order.

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**CHAPTER 8****SUBMISSION OF INFORMATION AND CALCULATION OF EXPECTED  
REVENUE FROM TARIFF AND CHARGES****70 FILING OF THE EXPECTED REVENUE FROM TARIFFS AND CHARGES**

70.1 Every utility who opts for determination of tariff under section 62 by the Commission, shall be required to file expected revenue from tariff and charges in the prescribed formats as per due procedure.

70.2 The licensee or the generating company if intending to meet the gap or a portion of the gap through revision in tariff or charges, shall have to file appropriate petition with the Commission requesting it to consider revision in tariff or charges to be applicable for the ensuing financial year.

**71 PROCEDURE – EXPECTED REVENUE FROM TARIFFS & CHARGES**

The generating company or the licensee, in case of non availability of prior period audited figures, may submit data as per provisional accounts. In such case, it shall utilize the verified and validated data of computerized billing/ financial accounting system (subject to availability of such system), after incorporating appropriate annual corrections with explanatory notes.

**72 FORMATS FOR FILING OF THE ESTIMATED REVENUE FROM TARIFF AND CHARGES**

The Licensee or the generating company shall file with the Commission the estimated revenue from tariff and charges, in appropriate formats as may be prescribed by the Commission.

**73 FEE, DISPLAY OF INFORMATION AND DATA VERIFICATION****73.1 Application fees**

Notwithstanding anything contained in the prevailing CSERC (Fees and Charges) Regulations, the generating company or the licensee, while submitting the information under these regulations, shall not be required to pay any fees to the Commission.

### 73.2 Display of information

The information received in the formats from the generating companies or the licensees shall be posted on the website of the Commission / generator / licensee.

### 73.3 Right to crosscheck and verify

The Commission shall have the right to crosscheck and verify the correctness of the information provided by the licensee or the generating company, as part of the calculation of the Expected Revenue from Tariff and Charges, at anytime, as the Commission may feel necessary. The Commission may also appoint a consultant for validation of data and examining the assumptions made by the licensee or the generating company. The licensee or the generating company shall have to provide access to such information as may be required by the Commission in this regard.

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**CHAPTER 9****MISCELLANEOUS PROVISIONS****74 NORMS OF OPERATION TO BE CEILING NORMS**

Norms of operation specified in these Regulations are the ceiling norms and shall not preclude the generating company or the transmission licensee or the distribution licensee, as the case may be, and the beneficiaries and the long-term transmission customers from adopting / practicing improved norms of operation.

**75 DEVIATION FROM NORMS**

Tariff for sale of electricity by the generating company or for transmission charges of the transmission licensee, as the case may be, may also be determined in deviation of the norms specified in these Regulations subject to the conditions that-

- (a) the levelised tariff over the useful life of the project on the basis of the norms in deviation does not exceed the levelised tariff calculated on the basis of the norms specified in these regulations; and
- (b) any deviation shall come into effect only after approval by the Commission, for which an application shall be made by the generating company or the transmission licensee, as the case may be.

**Explanation** - For the purpose of calculating the levelised tariff referred to in sub-clause (a) of regulation 75 the discounting factor shall be as notified by the CERC from time to time.

**76 APPLICATION FEE AND THE PUBLICATION EXPENSES**

The application filing fee and the expenses incurred on publication of notices in the application for approval of tariff, , be allowed to be recovered by the generating company or the transmission licensee/STU or the distribution licensee, as the case may be, directly from the beneficiaries or the transmission customers, as the case may be:

**77 POWER TO RELAX**

The Commission, for reasons to be recorded in writing, may relax any of the provisions of these regulations on its own motion or on an application made before it by an interested person.

**78 SAVINGS AND REPEAL**

- 78.1 Nothing in these Regulations shall be deemed to limit or otherwise impede the inherent power of the Commission to revise/review and make such orders as may be necessary, in the absence of sufficient data, to meet ends of justice or to prevent abuses of the process of the Commission.
- 78.2 Nothing in these Regulations shall impede the Commission from adopting, in conformity with the provisions of the Act, a procedure, which is at variance with any of the provisions of these Regulations, if the Commission, in view of the special circumstances of a matter or class of matters, and for reasons to be recorded in writing, deems it necessary or expedient for dealing with such a matter or class of matters.

**79 POWER TO REMOVE DIFFICULTIES**

If any difficulty arises in giving effect to any of the provisions of these regulations, the Commission may, of its own motion or otherwise by an order and after giving a reasonable opportunity to those likely to be affected by such order, make such provisions, not inconsistent with these regulations or the Act, as may appear to be necessary for removing those difficulties.

By order of the Commission,

P. N. SINGH, Secretary.



**Appendix-I****Depreciation Schedule**

Sr. No.	Asset Particulars	Depreciation Rate (Salvage Value=10%)
		SLM
A	Land under full ownership	0.0%
B	Land under lease	
(a)	For investment in the land	3.34%
(b)	For cost of clearing the site	3.34%
(c)	Land for reservoir in case of hydro generating station	3.34%
C	Assets purchased new	
(a)	Pl & Machinery in generating stations	
(i)	Hydro electric	5.28%
(ii)	Steam electric NHRB & waste heat recovery boilers	5.28%
(iii)	Diesel electric and gas plant	5.28%
(b)	Cooling towers & circulating water systems	5.28%
(c)	Hydraulic works forming part of the Hydro	
(i)	Dams, Spilways, Weirs, Canals, Reinforced concrete flumes and siphons	5.28%
(ii)	Reinforced concrete pipelines and surge tanks, steel pipelines, sluice gates, steel surge tanks, hydraulic control valves and hydraulic works	5.28%
(d)	Building & Civil Engineering works of a	
(i)	Offices and showrooms	3.34%
(ii)	Containing thermo-electric generating plant	3.34%
(iii)	Containing hydro-electric generating plant	3.34%
(iv)	Others	3.34%
(e)	Transformers, Kiosk, Sub-station equipment & other fixed apparatus (including plant	
(i)	Transformers including foundations having rating of 100 KVA and over	5.28%
(ii)	Others	5.28%
(f)	Switchgear including cable connections	5.28%
(g)	Lightning arrestor	5.28%
(i)	Station type	5.28%
(ii)	Pole type	5.28%
(iii)	Synchronous condenser	5.28%
(h)	Batteries	5.28%
(i)	Underground cable including joint boxes and disconnected boxes	5.28%

Sr. No.	Asset Particulars	Depreciation Rate (Salvage Value=10%)
		SLM
(ii)	Cable duct system	5.28%
I	Overhead lines including cable support	
(i)	Lines on fabricated steel operating at terminal voltages higher than 66 KV	5.28%
(ii)	Lines on steel supports operating at terminal voltages higher than 13.2 KV but not exceeding 66 KV	5.28%
(iii)	Lines on steel on reinforced concrete support	5.28%
(iv)	Lines on treated wood support	5.28%
(j)	Meters	5.28%
(k)	Self propelled vehicles	9.50%
(l)	Air Conditioning Plants	
(i)	Static	5.28%
(ii)	Portable	9.50%
M (i)	Office furniture and furnishing	6.33%
(ii)	Office equipment	6.33%
(iii)	Internal wiring including fittings and apparatus	6.33%
(iv)	Street Light fittings	5.28%
N	Apparatus let on hire	
(i)	Other than motors	9.50%
(ii)	Motors	6.33%
O	Communication equipment	
(i)	Radio and high frequency carrier system	6.33%
(ii)	Telephone lines and telephones	6.33%
P	I.T. Equipments	15.00%
Q	Any other assets not covered above	5.28%